



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/086,821	05/29/1998	MARCO LARA	ATV-004	8789

21323 7590 10/05/2004

TESTA, HURWITZ & THIBEAULT, LLP
HIGH STREET TOWER
125 HIGH STREET
BOSTON, MA 02110

EXAMINER

SALAD, ABDULLAHI ELMI

ART UNIT	PAPER NUMBER
----------	--------------

2157

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/086,821

Applicant(s)

LARA ET AL.

Examiner

Salad E Abdullahi

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,6-16,20 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-16,20 and 25-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/20/2004 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 13 recites the limitation "the transferring step" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 2157

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 6-16, 20, 26 and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Hu U.S. Patent No. 6,173,322[hereinafter Hu] in view of Graber et al., [hereinafter Graber].

As per claim 1 Hu, discloses a method for distributing browser web page requests among two or more servers, comprising:

- monitoring the servers, each web server being computer program running within a host computer, the monitoring performed to determine if a predetermined condition (i.e. failed or overloaded)(see col. 15, lines 11-16);
- if the predetermined condition does exist at least one of the servers, redirecting by that server at least one client request from that server to another one of the servers such that the browser requests the web page from another one of the web servers(see col. 6, lines 11-22 and col. 4, line 66 to col. 5, line 8).

HU is silent regarding:

regardless of the availability of separate interceptor process for redirecting requests.

Graber in an analogous art discloses a method of redirecting web page requests regardless of the availability of separate interceptor process for redirecting requests

Art Unit: 2157

(see figs. 1 and 6, col. 6, lines 22-37 and col.12, lines 18-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Graber such as redirecting browser requests regardless of the availability of separate interceptor process for redirecting requests into Hu's system such that browser requests can directed the most appropriate server that serve the request, thus improving system response time.

In considering claim 6, Hu discloses the method of claim 1 wherein the monitoring step comprises monitoring the system load of the host server (see col. 15, lines 1-16).

In considering claim 7, Hu discloses the method of claim 1 wherein the predetermined condition comprises a CPU utilization or memory or failure etc (see col. 9, lines 19-46).

In considering claim 8 Hu discloses the method of claim 1 wherein the predetermined condition comprises a CPU utilization or memory or failure etc (see col. 9, lines 19-46).

In considering claim 14, Hu discloses the method of claim 1 wherein the predetermined condition comprises a CPU utilization or memory or failure etc (see col. 9, lines 19-46).

In considering claim 9, Graber discloses the method of claim 1, wherein the redirecting step comprises redirecting only if the request is for one of a predetermined set of web pages (see fig. 6 and col. 12, lines 10-42).

Art Unit: 2157

In considering claim 10, Graber discloses the method of claim 9, wherein the predetermined set is predetermined by list of web pages included in the web page included in the set (see fig. 6, and col. 12, lines 18-66).

In considering claim 11, Graber discloses the method of claim 9, wherein the predetermined set is predetermined by a list of web pages excluded from the set (see col. 12, lines 10-42).

In considering claim 12, Graber discloses the method of claim 1, wherein the redirecting step comprises redirecting only if the request is for web page that does not have state (see fig. 6, and col. 12, lines 10-42).

In considering claim 13, Graber discloses the method of claim 12, wherein the redirecting step comprises determining whether web page is included in a list of web pages that have state;
redirecting only if the web page is not included in the redirecting only if the request is for web page that does not have state (see fig. 6, and col. 12, lines 10-42).

In considering claim 14, Hu discloses the method of claim 1, wherein the monitoring comprises monitoring web servers to determine if predetermined condition exists and wherein the predetermined condition comprises failure (see col. 11, lines 60-65 and col. 12, lines 10-42).

Art Unit: 2157

As per claim 15 Hu, discloses a system for distributing browser web page requests among two or more servers, comprising:

- monitoring the servers, each web server being computer program running within a host computer, the monitoring performed to determine if a predetermined condition (i.e. failed or overloaded)(see col. 15, lines 11-16);
- if the predetermined condition does exist at least one of the servers, redirecting by that server at least one client request from that server to another one of the servers such that the browser requests the web page from another one of the web servers (see col. 6, lines 11-22 and col. 4, line 66 to col. 5, line 8).

HU is silent regarding:

regardless of the availability of separate interceptor process for redirecting requests.

Graber in an analogous art discloses a method of redirecting web page requests regardless of the availability of separate interceptor process for redirecting requests (see figs. 1 and 6, col. 6, lines 22-37 and col.12, lines 18-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Graber such as redirecting browser requests regardless of the availability of separate interceptor process for redirecting requests into Hu's system such that browser requests can directed the most appropriate server that serve the request, thus improving system response time.

Art Unit: 2157

In considering claim 16, Graber discloses the system of claim 15, wherein the redirecting step comprises redirecting only if the request is for one of a predetermined set of web pages (see fig. 6 and col. 12, lines 10-42).

As per claim 20 Hu, discloses a method for distributing browser web page requests among two or more servers, comprising:

- periodically monitoring a web server load metric of a web server, the web server being computer program running within a host computer (failed or overloaded) (see col. 15, lines 11-16);
- redirecting by that server at least one client request from that server to another one of the servers such that the browser requests the web page from another one of the web servers, thereby balancing the load metric of web server(see col. 6, lines 11-22 and col. 4, line 66 to col. 5, line 8).

HU is silent regarding:

regardless of the availability of separate interceptor process for redirecting requests.

Graber in an analogous art discloses a method of redirecting web page requests regardless of the availability of separate interceptor process for redirecting requests (see figs. 1 and 6, col. 6, lines 22-37 and col.12, lines 18-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Graber such as redirecting browser requests regardless of the availability of separate interceptor process for redirecting requests into Hu's system

Art Unit: 2157

such that browser requests can directed the most appropriate server that serve the request, thus improving system response time.

In considering claim 25, Hu discloses a system, wherein the step of redirecting is initiated by an agent (redirection module 212) running on the same host as the server and communication with the server interface, wherein the agent instructs the server to redirect the request (see col. 5, lines 20-54).

In considering claims 26 and 31, Hu discloses a system for distributing content request among two or more servers, comprising:

- monitoring by a central manager (request manager 102) the servers to determine if a predetermined condition exists (i.e. failed or overloaded) at one or more of the servers (see col. 5, lines 20-54 and col. 15, lines 10-60);
- if the predetermined condition does exist at least one of the servers, redirecting by that server at least one client request from that server to another one of the servers wherein the step of redirecting is initiated by an agent (redirection module 212) running on the same host as the server and communication with the server interface, wherein the agent instructs the server to redirect the request (see col. 6, lines 11 -22, col. 4, line 66 to col. 5, line 8 and col. 5, lines 20-54).

HU is silent regarding:

regardless of the availability of separate interceptor process for redirecting requests.

Art Unit: 2157

Graber in an analogous art discloses a method of redirecting web page requests regardless of the availability of separate interceptor process for redirecting requests (see figs. 1 and 6, col. 6, lines 22-37 and col.12, lines 18-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Graber such as redirecting browser requests regardless of the availability of separate interceptor process for redirecting requests into Hu's system such that browser requests can be directed to the most appropriate server that serves the request, thus improving system response time.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 27, 28, 29, 30, 32 and 33, are rejected under 35 U.S.C. 103(a) as being anticipated by Hu and Graber.

As per claims 27 and 29 Hu and Graber, discloses a system for distributing client requests among two or more servers, comprising:

- monitoring the servers to determine if a predetermined condition (i.e. failed or overloaded) (see col. 15, lines 1-16);
- if the predetermined condition does exist at least one of the servers, redirecting by that server at least one client request from that server to another one of the servers (see col. 6, lines 11 -22 and col. 4, line 66 to col. 5, line 8).

Art Unit: 2157

Hu and Graber, is silent regarding the monitoring step includes monitoring request queue delay. Nonetheless, monitoring the request queue delay of the servers would have been an obvious modification to Hu's system. Furthermore, Hu teaches performance characteristics or QOS parameters might be measured in a number of different ways such as measuring server response time to determine the status of the servers or how the servers are loaded. One skilled in the art would have been motivated to measure queue delay which contributes the server response time (see col. 9, lines 20). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize QOS parameters such request queue delay which is more accurate indicative of the current load of a web servers in order to provide dynamic redirection and overload protection.

In considering claims 28, 30, 32 and 33, Although Hu and Graber disclose substantial features of the claimed invention as discussed above with respect to claims 27, 29 and 31, Hu and Graber are silent regarding: the predetermined condition comprises request queue delay length greater than a predetermined value. Nonetheless, the predetermined condition comprises request queue delay length greater than a predetermined number would have been an obvious modification to Hu's system. Furthermore, Hu teaches performance characteristics or QOS parameters might be measured in a number of different ways such as measuring server response time to determine the status of the servers or how the servers are loaded (see col. 9, lines 20). Additionally, Hu teaches the monitoring module can be configured to fit users needs.

Art Unit: 2157

Hence one skilled in the art presented with teaching of Hu would have been motivated to check if the request queue delay length of the server is greater than a predetermined number or certain threshold to dynamically redirect requests to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize QOS parameters such as determining number of requests in the queue delay in order to provide dynamic redirection and overload protection.

CONCLUSION

8. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. 10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdullahi E. Salad whose telephone number is (703) 308-8441. The examiner can be reached on Monday to Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Etienne, Ario can be reached at (703) 308-7562. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


Any response to this action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to: (703) (872-9306).


Abdullahi E. Salad
09/29/2004